

What is claimed is:

- 1 1. A method for analyzing links between components of a computer system, comprising:
2 receiving input associated with a level of abstraction;
3 determining the level of abstraction based on the input;
4 filtering network links for display based on the level of abstraction; and
5 displaying the filtered network links to present a layered network diagram.
- 1 2. The method of claim 1, wherein the input is a user identification.
- 1 3. The method of claim 1, wherein the level of abstraction represents at least one protocol.
- 1 4. The method of claim 1, wherein each displayed network link represents a layer of an
2 industry standard stack.
- 1 5. The method of claim 4, wherein the layer of the industry standard stack is selected from
2 the group consisting of the layers of an Open System Interconnection (OSI) protocol stack.
- 1 6. The method of claim 1, wherein each network link represents a protocol.
- 1 7. The method of claim 6, wherein the protocol is selected from the group consisting of
2 Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and
3 Hypertext Transfer Protocol (HTTP).
- 1 8. The method of claim 1, wherein filtering includes identifying any network link that
2 represents a relevant propagated failure regardless of the level of abstraction
- 1 9. The method of claim 1, wherein displaying includes displaying a three dimensional
2 representation of the link.

- 1 10. A method for network analysis by presenting a layered network diagram on a
2 visualization workstation, comprising:
3 storing in an object repository, at least one object representing a link between
4 components of a network;
5 receiving a request to present the network topology represented by the at least one object
6 in the object repository;
7 receiving input associated with a level of abstraction;
8 determining the level of abstraction based on the input;
9 filtering the at least one object based on the level of abstraction; and
10 displaying the at least one filtered objects to present a layered network diagram.
- 1 11. The method of claim 10, wherein the level of abstraction limits the presentation to at least
2 one protocol.
- 1 12. The method of claim 10, wherein the displayed objects represent a layer of an industry
2 standard stack.
- 1 13. The method of claim 12, wherein the layer of the industry standard stack is selected from
2 the group consisting of the layers of an Open System Interconnection (OSI) protocol stack.
- 1 14. The method of claim 10, wherein each displayed object represents a protocol.
- 1 15. The method of claim 14, wherein the protocol is selected from the group consisting of
2 Internet Protocol (IP), Transmission Control Protocol (TCP), File Transfer Protocol (FTP) and
3 Hypertext Transfer Protocol (HTTP).
- 1 16. The method of claim 10, wherein filtering includes identifying any object that represents
2 a relevant propagated failure regardless of the level of abstraction.
- 1 17. The method of claim 10, wherein displaying includes displaying a three dimensional
2 representation of the at least one object.

1 18. An apparatus for analyzing links between components of a computer system, comprising:
2 a processor;
3 a memory connected to said processor storing a program to control the operation of said
4 processor;
5 the processor operative with the program in the memory to:
6 receive input associated with a level of abstraction;
7 determine the level of abstraction based on the input;
8 filter network links for display based on the level of abstraction; and
9 display the filtered network links to present a layered network diagram.

1 19. An apparatus for network analysis by presenting a layered network diagram on a
2 visualization workstation, comprising:
3 a processor;
4 a memory connected to said processor storing a program to control the operation of said
5 processor;
6 the processor operative with the program in the memory to:
7 store in an object repository, at least one object representing a link between
8 components of a network;
9 receive a request to present the network topology represented by the at least one
10 object in the object repository;
11 receive input associated with a level of abstraction;
12 determine the level of abstraction based on the input;
13 filter the at least one object based on the level of abstraction; and
14 display the at least one filtered objects to present a layered network diagram.

1 20. An apparatus for analyzing links between components of a computer system, comprising:
2 means for receiving input associated with a level of abstraction;
3 means for determining the level of abstraction based on the input;
4 means for filtering network links for display based on the level of abstraction; and
5 means for displaying the filtered network links to present a layered network diagram.

1 21. A apparatus for network analysis by presenting a layered network diagram on a
2 visualization workstation, comprising:
3 means for storing in an object repository, at least one object representing a link between
4 components of a network;
5 means for receiving a request to present the network topology represented by the at least
6 one object in the object repository;
7 means for receiving input associated with a level of abstraction;
8 means for determining the level of abstraction based on the input;
9 means for filtering the at least one object based on the level of abstraction; and
10 means for displaying the at least one filtered objects to present a layered network
11 diagram.

12 22. A computer-readable storage medium encoded with processing instructions for
13 implementing a method for analyzing links between components of a computer system, the
14 processing instructions for directing a computer to perform the steps of:
15 receiving input associated with a level of abstraction;
16 determining the level of abstraction based on the input;
17 filtering network links for display based on the level of abstraction; and
18 displaying the filtered network links to present a layered network diagram.

1 23. A computer-readable storage medium encoded with processing instructions for
2 implementing a method for network analysis by presenting a layered network diagram on a
3 visualization workstation, the processing instructions for directing a computer to perform the
4 steps of:
5 storing in an object repository, at least one object representing a link between
6 components of a network;
7 receiving a request to present the network topology represented by the at least one object
8 in the object repository;
9 receiving input associated with a level of abstraction;
10 determining the level of abstraction based on the input;

- 11 filtering the at least one object based on the level of abstraction; and
- 12 displaying the at least one filtered objects to present a layered network diagram.

Filed for U.S. Patent Application No. 28280 / 04000